

REMARKS

Claims 1-20 remain in this application.

Entry of the above amendments is earnestly solicited. An early and favorable first action on the merits is earnestly requested.

Should there be any matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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APPENDIX:

The Appendix includes the following item(s):

☒ - a new or amended Abstract of the Disclosure

ABSTRACT OF THE DISCLOSURE

A piezoceramic composition with the general empirical formula $Pb_{1-a}RE_bZr_xTi_yTR_zO_3$, in which RE represents a rare-earth element, selected from a group comprising europium, gadolinium, lanthanum, neodymium, praseodymium, promethium and/or samarium, with a rare-earth element fraction b, TR represents at least one transition metal, selected from the group comprising chromium, iron and/or manganese, with a transition metal valency WTR and a transition metal fraction z and whereby the following interrelation is valid: $z > b/(4 - WTR)$. Homogenous PZT crystals with a maximum particle size are obtained even at low sintering temperatures by a non-stoichiometric dosing ratio of transition metal dosage to rare-earth element dosage. By varying the dosages, the piezoelectric characteristics of a PZT ceramic with the composition can be modified from those of a classic soft PZT to those of a classic hard PZT.